AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A method to determine [[the]] a value of [[the]] a resonant frequency of a resonant sensor subject to an acousto-mechanical and/or dielectric load, wherein said sensor is excited by at least a first electrical signal having a first frequency, characterized in that the sensor is constantly and simultaneously excited by at least a second electrical signal having a second frequency different and independent from said first frequency so as to compensate [[the]] a parallel capacitance of the sensor in an automatic and continuous way.

2. (currently amended) A method according to claim 1, wherein said first frequency of said first electrical exciting signal of said sensor is constantly maintained to a value such that [[the]] a phase of [[the]] an impedance of said sensor is zero.

3. (currently amended) A method according to claim 1, wherein said second electrical signal at said second frequency is

used to instantaneously determine [[the]] a response due only to the parallel capacitance of said sensor.

4. (currently amended) A method according to claim 1, wherein said first frequency is [[the]] a series resonant frequency of the sensor.

5. (currently amended) A method according to claim 1, wherein said second frequency is lower than [[the]] a series resonant frequency of the sensor.

6. (currently amended) A method according to claim 1, wherein instantaneous detection is provided of at least one electrical quantity representative of [[the]] a value of said compensated parallel capacitance.

7. (currently amended) A method according to claim 1, wherein instantaneous detection is provided of at least one electrical quantity representative of [[the]] a value of the quality factor Q of said sensor.

8. (original) A method according to claim 1, wherein said resonant sensor is a piezoelectric sensor.

9. (original) A method according to claim 1, wherein said resonant sensor is a piezoelectric quartz sensor.

10. (original) A method according to claim 1, wherein said resonant sensor is a piezoelectric AT-cut vibrating in Thickness-Shear Mode (TSM) quartz crystal sensor.

11. (currently amended) A device to determine [[the]] a value of [[the]] a resonant frequency of a resonant sensor subject to ~~anacousto-mechanical~~ an acousto-mechanical and/or dielectric load, including at least one oscillator circuit having at least one first feedback section to excite said sensor with at least one first electrical signal having a first frequency, characterized in that at least one second feedback section is included to constantly and simultaneously excite said sensor with at least one second electrical signal having a second frequency different and independent from said first frequency so as to compensate [[the]] a parallel capacitance of the sensor in ~~anautomatic~~ an automatic and continuous way.

12. (currently amended) A device according to claim 11, wherein said resonant sensor is [[the]] a frequency-controlling element of the frequency of said oscillator circuit.

13. (currently amended) A device according to claim 11, wherein said first frequency is [[the]] a series resonant frequency of the sensor.

14. (currently amended) A device according to claim 11, wherein said second frequency is lower than [[the]] a series resonant frequency of the sensor.

15. (currently amended) A device according to claim 11, wherein said first feedback section includes a first feedback loop that forms a phase-locked loop to follow [[the]] a series resonant frequency of said sensor.

16. (original) A device according to claim 11, wherein said second feedback section includes a second feedback loop that performs the automatic compensation of the parallel capacitance of said sensor.

17. (currently amended) A device according to claim 15, wherein,

said second feedback section includes a second feedback loop that performs the automatic compensation of the parallel capacitance of said sensor, and

said first feedback loop is coupled to said second feedback loop.

18. (currently amended) A device according to claim 11, wherein at least one of said at least one first feedback section and said at least one second feedback section comprises ~~is included comprising~~ a voltage-controlled variable capacitance.

19. (original) A device according to claim 11, wherein at least one terminal of said resonant sensor is connected to ground.

20. (original) A device according to claim 11, wherein said resonant sensor is a piezoelectric sensor.

21. (original) A device according to claim 11, wherein said resonant sensor is a piezoelectric quartz sensor.

22. (original) A device according to claim 11, wherein said resonant sensor is a piezoelectric AT-cut vibrating in Thickness-Shear Mode (TSM) quartz crystal sensor.